## **SE97 RDD Justification**

The justification for each Question in the two surveys is provided below. Questions asked of respondents that have not fished within the last 2 months are denoted with a "NP." A AP@denotes respondents that have fished during the two-month wave.

## **All Categories**

Question 1-2 Screening question. Categorizes anglers into Category 1-4

## Version A

Question 3

NP - This information will provide insights into why anglers become inactive and give clues as to how participation might be expected to change under new management rules, fishing conditions, etc.

Ouestion 4

AR - Contingent behavior questions elicit information on how behavior changes - taking more or fewer trips, or targeting new species - in response to certain conditions. This information allows us to project future actions based on real events and behavioral changes. When combined with site specific travel costs and information concerning fishing mode and targeted species, welfare change estimates can be calculated from these stated behavior patterns. Using a similar methodology, the economic value of the fishing sites or groups of sites can be calculated. This particular question asks if fishing frequency changes as a result of regulation changes, allowing the evaluation of changes in economic value and economic value of fishing as fishing policies are changed.

SKIP JUSTIFICATION: If the respondent answers no to the above, the follow up questions, 7a & 7b are skipped because those questions do not apply to an individual that has not changed fishing behavior based on regulation changes.

Question 4a

AR – If angler behavior has been altered by regulation, the angler is asked the direction of behavior change. If the number of fishing trips taken increase (decrease) the utility derived from fishing is increased (decreased).

Question 4b

AR-Once the direction of change is established the enormity of change is quantified. Using direction of change and magnitude and tying that information to per trip travel cost, the economic value of change can be estimated QUESTION 3  $$\operatorname{NP}$ - See telephone follow-up justification QUESTION 7.

Ouestion 5

AR – Again, contingent behavior questions elicit information on how behavior changes - taking more or fewer trips, or targeting new species - in response to certain conditions. This information allows us to project future actions based on real events and behavioral changes. When combined with site specific travel costs and information concerning fishing mode and targeted species, welfare change estimates can be calculated from these stated behavior patterns. Using a similar methodology, the economic value of the fishing sites or groups of sites can be calculated. This particular question asks if fishing frequency changed as a result of changes in catch rates, allowing the evaluation of changes in economic value and societal welfare changes when fishing quality is increased (decreased).

**SKIP JUSTIFICATION:** If the respondent answers no to the above, the follow up questions, 8a & 8b are skipped because those questions do not apply to an individual that has not changed fishing behavior based on catch rate changes.

Question 5a

AR – If angler behavior has been altered by regulation, the angler is asked the direction of behavior change. If the number of fishing trips taken increase (decrease) the utility derived from fishing is increased (decreased).

- Question 5b AR Once the direction of change is established the enormity of change is quantified. Using direction of change and magnitude and tying that information to per trip travel cost, the economic value of change can be estimated.
- Question 6 AR Again, contingent behavior questions elicit information on how behavior changes taking more or fewer trips, or targeting new species in response to certain conditions. This information allows us to project future actions based on real events and behavioral changes. When combined with site specific travel costs and information concerning fishing mode and targeted species, welfare change estimates can be calculated from these stated behavior patterns. Using a similar methodology, the economic value of the fishing sites or groups of sites can be calculated. This particular question asks if target species changed as a result of changes in catch rates and/or fishing regulation changes, allowing the evaluation of changes in economic value and societal welfare changes when fishing quality is increased (decreased) or regulations are changed.

**SKIP JUSTIFICATION:** If the respondent answers no to the above, the follow up questions, 9a is skipped because those questions do not apply to an individual that has not changed target species because of catch rate changes or regulation changes.

- Question 6a AR –Identifies target species change.
- Question 7 AR Expectations of catch performance can be expected to influence site, mode and target behavior as well as influences values attached to proposed management changes.
- Question 8 AR This question will be used to indicate regional enforcement pressure. This will lend insight regarding how actual regional enforcement may influence behavior.
- Question 9 AR Boat ownership may influence attitudes toward fishing and may affect the type of trip, species targeting behavior, and fishing site selection. Boat ownership will be incorporated into the economic valuation model.
- Question 10 AR Age of the respondent will be used to develop a profile of participation behavior in the Regions.
- Question 10a AR This Question allows us to age respondents that did not answer Question 20 See Question 20.
- Question 11 AR Gender will be used to develop a profile of participation behavior. Past studies have shown gender to be related to the likelihood that a respondent fishes, with women being less likely to participate.
- Question 12 AR Race will be used to develop angler profiles for the Regions. Social and demographic factors may also be used in developing the behavioral model to estimate saltwater recreational fishing values.
- Question 13 AR Further develops ethnic background with respect to Hispanic heritage. **SKIP JUSTIFICATION:** If angler is not Hispanic, 23a was skipped.
- Question 13a AR Further develops Hispanic origin for more detailed angler profiling.
- Question 14 AR Employment status will be used to develop angler profiles. Past research using the travel cost method and its variants have stressed the importance of assigning a value to the individual's opportunity cost of time. The opportunity cost of time may be thought of as being affected by whether the individual is employed, the nature of the employment, whether any income was actually foregone in order to take the trip, and the value of the foregone income. All of these factors will be evaluated and used in the economic valuation model to compute an appropriate value of time.

**SKIP JUSTIFICATION:** If angler is unemployed, employment type is not needed and Question 24a is skipped. If angler is employed, unemployment type is not needed and Question 24b is skipped.

- Question 14a EH Whether respondent is employed full or part time has bearing on the availability for fishing time and consequently the opportunity cost of the angler's time..
- Question 14b UH –Unemployment types also have explanatory power in the opportunity cost equation. A retired individual's time has a different opportunity cost than the opportunity cost of time that a student has.
- Question 15 AR Total annual household income will be used to develop angler profiles for the Regions. Also, income is an explanatory variable used in the estimation of economic valuation models. Thus, income will be used in estimation of saltwater recreational fishing values in each Region.

## Version B

- Question 3 P The information collected in Question 1 will be used to evaluate whether species preference patterns of telephone surveyed anglers matches those of intercepted anglers.
- Question 4 P The information collected in Question 1 will be used to evaluate whether avidity patterns of telephone surveyed anglers matches those of intercepted anglers.
- Question 5 P The information collected in Question 1 will be used to evaluate persistence of behavior and be compared with similar information gathered from the intercept survey to compare sample groups.
- Question 6 P The sale of recreationally landed fish is a contentious and controversial issue. Information from this Question will provide insight on the potential impacts of recreational sales prohibition on anglers and thus guide fishery managers.
- Question 7 AR Boat ownership may influence attitudes toward fishing and may affect the type of trip, species targeting behavior, and fishing site selection. Boat ownership will be incorporated into the economic valuation model.
- Question 8 AR Age of the respondent will be used to develop a profile of participation behavior in the Regions.
- Question 8a AR This Question allows us to age respondents that did not answer Question 20 See Question 20.
- Question 9 AR Gender will be used to develop a profile of participation behavior. Past studies have shown gender to be related to the likelihood that a respondent fishes, with women being less likely to participate.
- Question 10 AR Race will be used to develop angler profiles for the Regions. Social and demographic factors may also be used in developing the behavioral model to estimate saltwater recreational fishing values.
- Question 11 AR Further develops ethnic background with respect to Hispanic heritage. **SKIP JUSTIFICATION:** If angler is not Hispanic, 23a was skipped.
- Question 11a AR Further develops Hispanic origin for more detailed angler profiling.

Question 12 AR - Employment status will be used to develop angler profiles. Past research using the travel cost method and its variants have stressed the importance of assigning a value to the individual's opportunity cost of time. The opportunity cost of time may be thought of as being affected by whether the individual is employed, the nature of the employment, whether any income was actually foregone in order to take the trip, and the value of the foregone income. All of these factors will be evaluated and used in the economic valuation model to compute an appropriate value of time.

**SKIP JUSTIFICATION:** If angler is unemployed, employment type is not needed and Question 24a is skipped. If angler is employed, unemployment type is not needed and Question 24b is skipped.

- Question 12a EH Whether respondent is employed full or part time has bearing on the availability for fishing time and consequently the opportunity cost of the angler's time..
- Question 12b UH –Unemployment types also have explanatory power in the opportunity cost equation. A retired individual's time has a different opportunity cost than the opportunity cost of time that a student has.
- Question 13 AR Total annual household income will be used to develop angler profiles for the Regions. Also, income is an explanatory variable used in the estimation of economic valuation models. Thus, income will be used in estimation of saltwater recreational fishing values in each Region.